

Abstract of Disclosure

Methods and systems are provided for patterning a non conductive dielectric on a surface of a conductive polymer. The conductive polymer can be part of an organic memory cell. Hydrogen ions created from molecular hydrogen being exposed to short wave length radiation, are employed as mobile positive ion charge carriers to create a non-conductive dielectric pattern on a conductive and/or semiconductive polymer surface of the organic memory cell. Such process reduces number of masking steps performed. In addition, the process is scalable with lithographic wave length and can be performed on wide spread tool sets and photoresist material available in commercial market.